RESTRICTED

ORDNANCE FIELD SERVICE

BASE SHOP DATA

Carbine, Cal. .30, M1 & M1A1

PREPARED UNDER THE DIRECTION OF THE
CHIEF OF ORDNANCE

ROCK ISLAND ARSENAL - SEPT., 1942

Carbine, Cal. .30, M1 & M1A1

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Dismantling	2

NOTE

Base Shop Data Units which are used on more than one assembly are incorporated under their original marking and are, in addition, identified by the words "Common to two or more assemblies" under the title of the unit affected.

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Carbine, Cal. .30, M1 & M1A1

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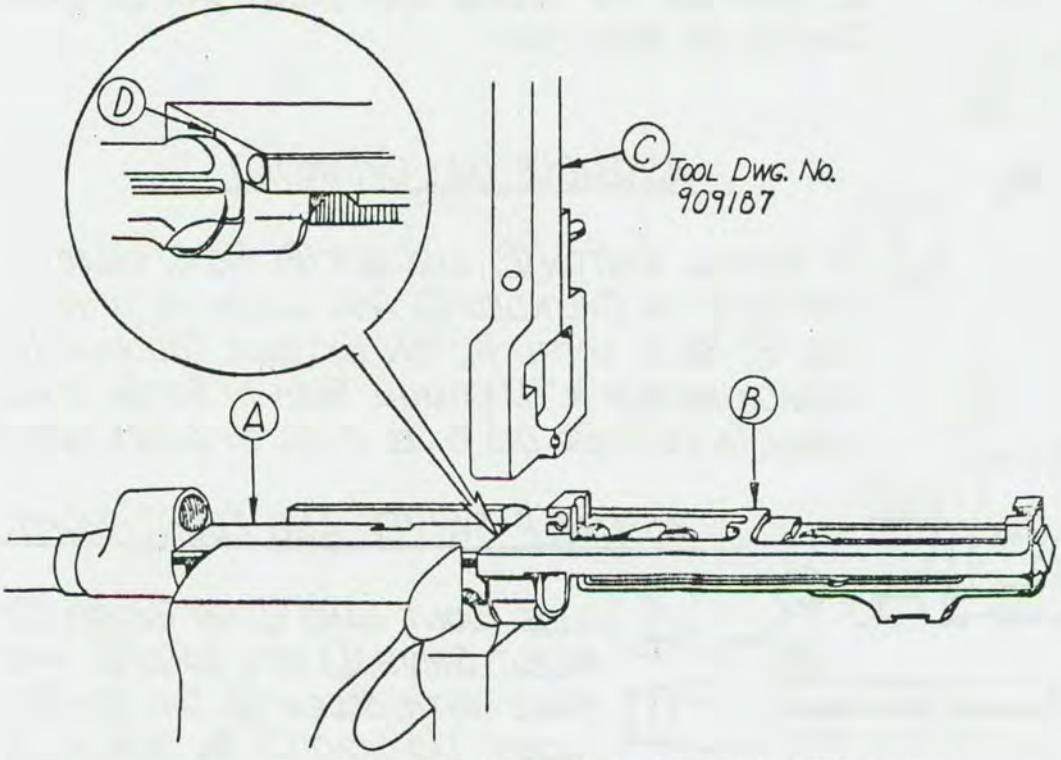
SMALL ARMS CARBINE, CAL.30 M1 AND M1A1	ASSEMBLING	SHEET 1 OF 8

NOTE: INSPECT EACH COMPONENT PART OF THE CARBINE FOR EXCESSIVE WEAR OR BREAKAGE. REPLACE ANY PARTS IF NECESSARY. LUBRICATE THOROUGHLY DURING ASSEMBLY.



ASSEMBLE RECEIVER TO BARREL

(1) PLACE THE BARREL Ⓐ IN A VISE AND SCREW ON RECEIVER Ⓑ. DRAW UP RECEIVER WITH BOX WRENCH Ⓒ UNTIL POSITION LINES Ⓓ ARE ALIGNED.

SMALL ARMS CARBINE, CAL.30 M1 AND M1A1	ASSEMBLING	SHEET 2 OF 8

ASSEMBLE REAR SIGHT

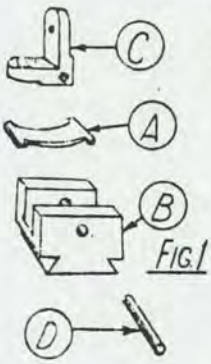


FIG. 1

2 TO ASSEMBLE THE REAR SIGHT, PLACE SPRING Ⓐ IN THE BASE Ⓑ IN CONCAVE POSITION. PRESS SIGHT LEAF Ⓒ DOWN ON THE SPRING AND INSERT PIN Ⓓ. STAKE PIN Ⓓ ON BOTH ENDS.

ASSEMBLE GAS CYLINDER

3 TO INSTALL PISTON Ⓔ AND NUT Ⓕ. FIG. 3, INSERT PISTON Ⓔ IN CYLINDER Ⓖ AND SCREW IN, USING TOOL Ⓗ, FIG. 2, UNTIL PISTON EXTENDS THROUGH NUT APPROXIMATELY ¼" MAXIMUM. PUSH IN PISTON; STAND CARBINE ON RECEIVER END TO SEE IF PISTON SLIDES FREELY.

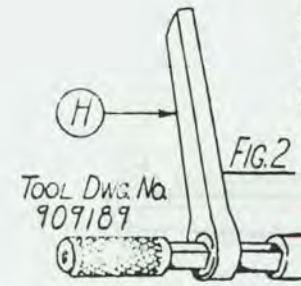
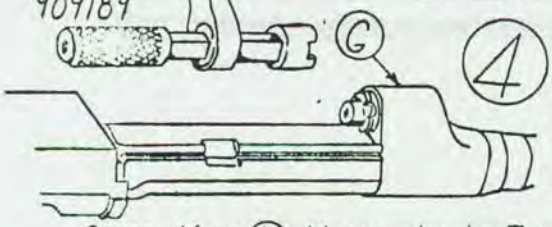


FIG. 2

TOOL DWG. NO. 909189

ASSEMBLE SWIVEL AND FRONT SIGHT



4 SLIDE FRONT BAND Ⓙ ON BARREL Ⓚ. INSERT SWIVEL Ⓛ INTO BAND Ⓙ AND HINGE WITH SCREW Ⓜ. TAP KEY Ⓝ INTO BARREL. TAP SIGHT Ⓟ ON BARREL AND OVER KEY Ⓝ UNTIL IT IS FLUSH ON BOTH ENDS WITH KEY Ⓝ. INSERT PIN Ⓠ THROUGH SIGHT Ⓟ AND KEY Ⓝ. STAKE KEY Ⓝ AT THE REAR AND PIN Ⓠ AT BOTH ENDS.

5 TAP REAR SIGHT Ⓡ INTO RECEIVER FROM LEFT TO RIGHT. ALIGN SCRIBE MARKS MADE BEFORE DISMANTLING.

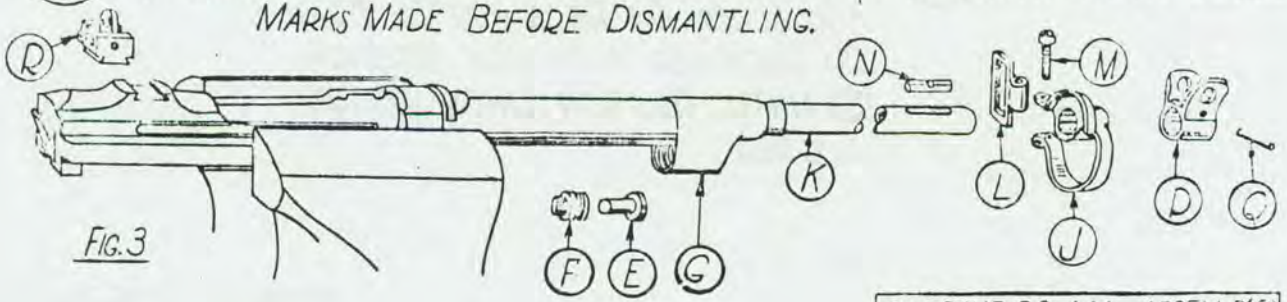


FIG. 3

SMALL ARMS CARBINE, CAL. 30 M1 AND M1A1	ASSEMBLING	SHEET 3 OF 8

ASSEMBLE BOLT GROUP

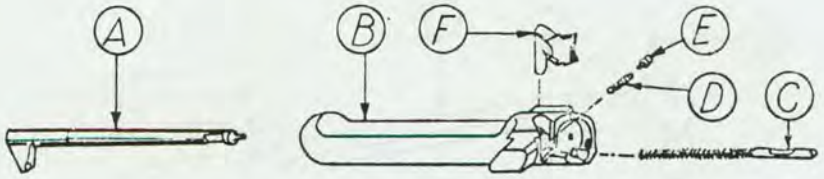


FIG. 1

(6) INSERT FIRING PIN (A) INTO BOLT (B). SLIDE EJECTOR AND SPRING (C) INTO BOLT. INSERT SPRING (D) AND PLUNGER (E). PRESS EJECTOR BACK INTO BOLT AND TAP IN EXTRACTOR (F) UNTIL IT IS LOCKED IN PLACE BY PLUNGER (E).

INSTALL BOLT GROUP

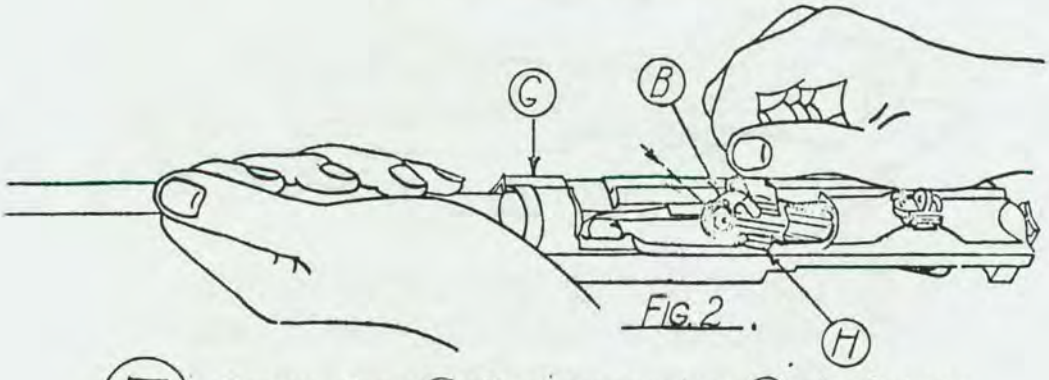


FIG. 2.

(7) GRASP BOLT (B) BY LOCKING LUG (H) AS SHOWN AND INSERT THE REAR OF BOLT (B) IN AN UPRIGHT POSITION INTO REAR OF OPENING IN RECEIVER (G). LOWER THE BOLT, TURNING IT TO THE RIGHT UNTIL LUG (H) ENGAGES THE GROOVE INSIDE THE LEFT SIDE OF RECEIVER. SLIDE THE BOLT (B) FORWARD TO LOCKED POSITION TO BE SURE IT WORKS FREELY.

ASSEMBLE OPERATING SLIDE

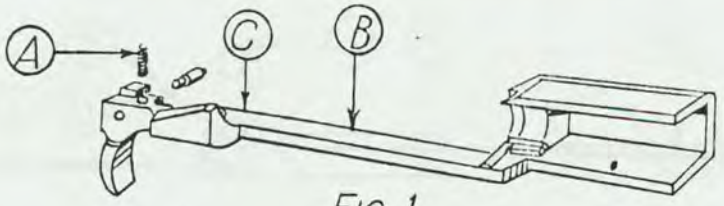


FIG. 1

(8) INSERT SPRING (A) INTO THE OPERATING HANDLE (B). PRESS SPRING (A) DOWN AND INSERT OPERATING SLIDE STOP (C).

INSTALL OPERATING SLIDE

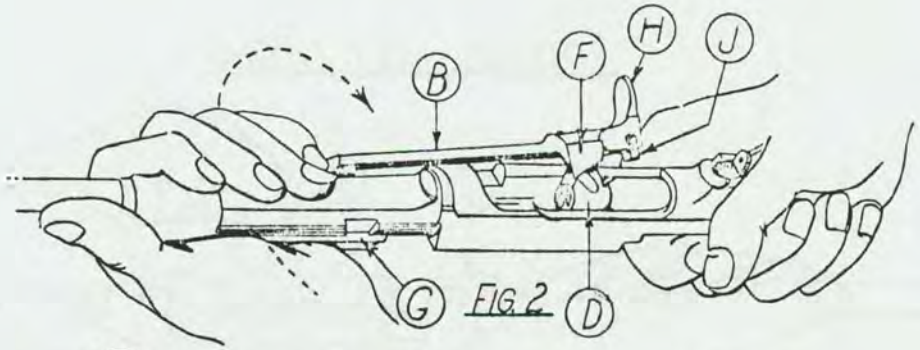
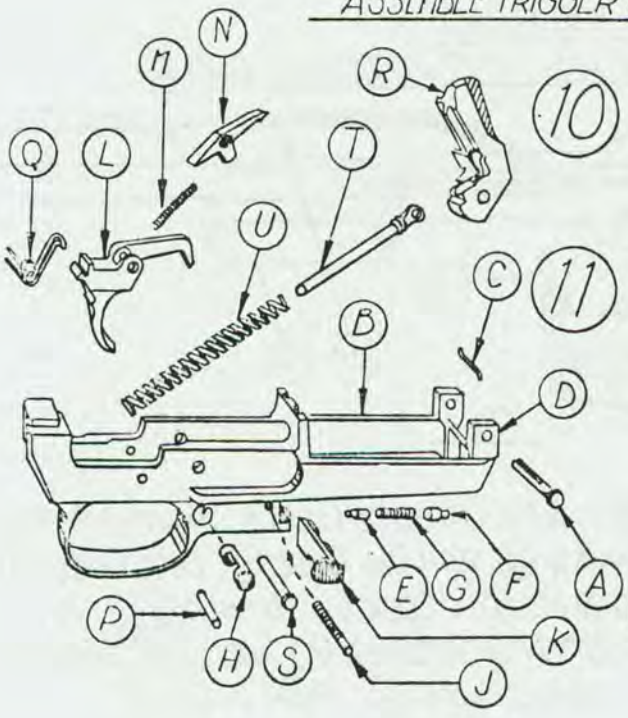


FIG. 2

(9) REMOVE BOLT (D) FROM LOCKED POSITION AND SLIDE IT ABOUT HALF WAY TO REAR OF OPENING. GRASP OPERATING SLIDE (B) IN LEFT HAND AND PLACE CAMMED PART (F) OVER LOCKING LUG OF BOLT (D). TURN SLIDE (B) TO LEFT. ENGAGE THE LEFT LUG AT (G). PULL OPERATING HANDLE (H) TO THE REAR UNTIL LUG (J) ENTERS GROOVE IN RIGHT SIDE OF RECEIVER. SLIDE OPERATING HANDLE (H) FORWARD UNTIL BOLT (D) IS IN LOCKED POSITION.

SMALL ARMS CARBINE, CAL 30 M1 AND M1A1	ASSEMBLING	SHEET 5 OF 8

ASSEMBLE TRIGGER HOUSING GROUP



10 INSERT SPRING (C) IN PIN (A), AND STAKE. DEPRESS THE SPRING (C) AND INSERT THE PIN (A) THROUGH LUG (D).

11 ATTACH SAFETY PLUNGER (E) AND MAGAZINE CATCH RETAINER PLUNGER (F) ON EACH END OF SPRING (G). INSERT SAFETY (H). SLIDE PLUNGER (E) AND ASSEMBLY INTO HOUSING UNTIL PLUNGER (E) LOCKS SAFETY (H).

12 INSERT SPRING AND PLUNGER (J) INTO HOUSING. DEPRESS PLUNGER (F) AND SLIDE IN MAGAZINE CATCH (K). BE SURE THE PLUNGER (J) IS PUSHING OUT ON MAGAZINE CATCH (K).

13 PLACE TRIGGER (L) IN HOUSING. PLACE SPRING (M) IN ITS SEATS IN TRIGGER AND IN BOTTOM OF SEAR (N). INSERT PIN (P) THROUGH TRIGGER AND SEAR (N). PUSH SPRING (Q) INTO HOUSING UNTIL THE CLOSED ARM IS SEATED IN REAR OF TRIGGER (L). PLACE HAMMER (R) ON SEAR (N) AND INSERT PIN (S).

14 INSTALL HAMMER SPRING PLUNGER (T) TO HAMMER SPRING (U). HOLD FREE END OF SPRING (U) AGAINST FACE OF TRIGGER HOUSING, CENTERED IN HAMMER SPRING PLUNGER RECESS, WITH PLUNGER (T) LYING TO THE RIGHT SIDE OF HAMMER (R).

15 INSERT SMALL PUNCH INTO HOLE IN PLUNGER (T) AND PULL BACK PLUNGER AGAINST THE FORCE OF SPRING, GUIDING REAR END OF PLUNGER INTO RECESS IN TRIGGER HOUSING. WHEN FORWARD END OF PLUNGER (T) IS EVEN WITH REAR FACE OF HAMMER (R), PRESS PLUNGER TO LEFT AND SEAT IN RETAINING GROOVES IN BASE OF HAMMER.

INSTALL OPERATING SLIDE SPRING AND GUIDE AND TRIGGER HOUSING GROUP

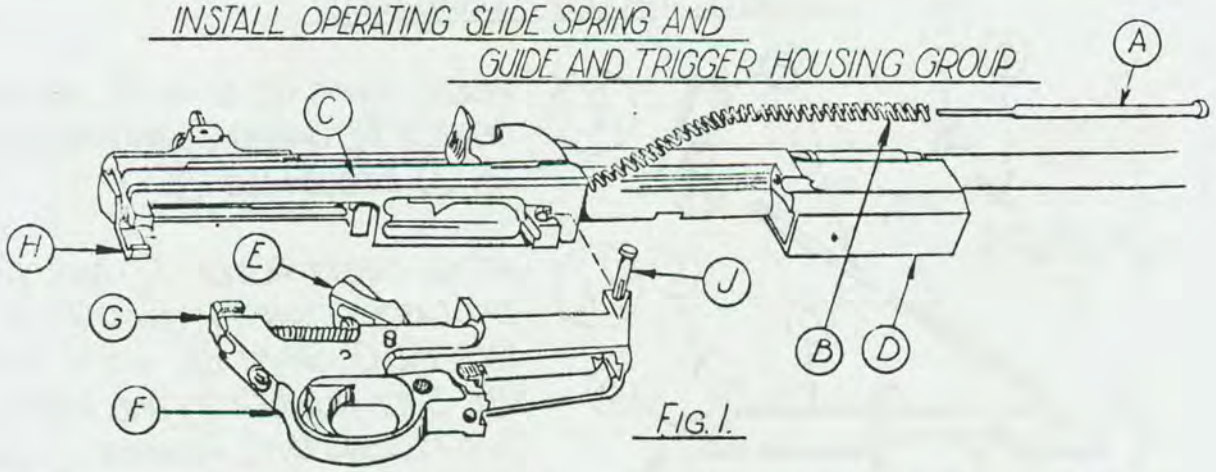


FIG. 1.

(16) INSERT GUIDE (A) INTO SPRING (B). SLIDE OPPOSITE END OF SPRING (B) INTO RECEIVER (C). COMPRESS THE SPRING (B) WITH THE GUIDE (A) UNTIL GUIDE (A) IS SEATED IN HOLE IN OPERATING SLIDE (D). COCK THE HAMMER (E). PLACE TRIGGER HOUSING GROUP (F) ON BOTTOM OF RECEIVER (C) AND SLIDE GROUP (F) TO THE REAR SO THAT CATCH (G) ENGAGES SLOTS (H). PUSH IN PIN (J).

ASSEMBLE THE M1 STOCK GROUP

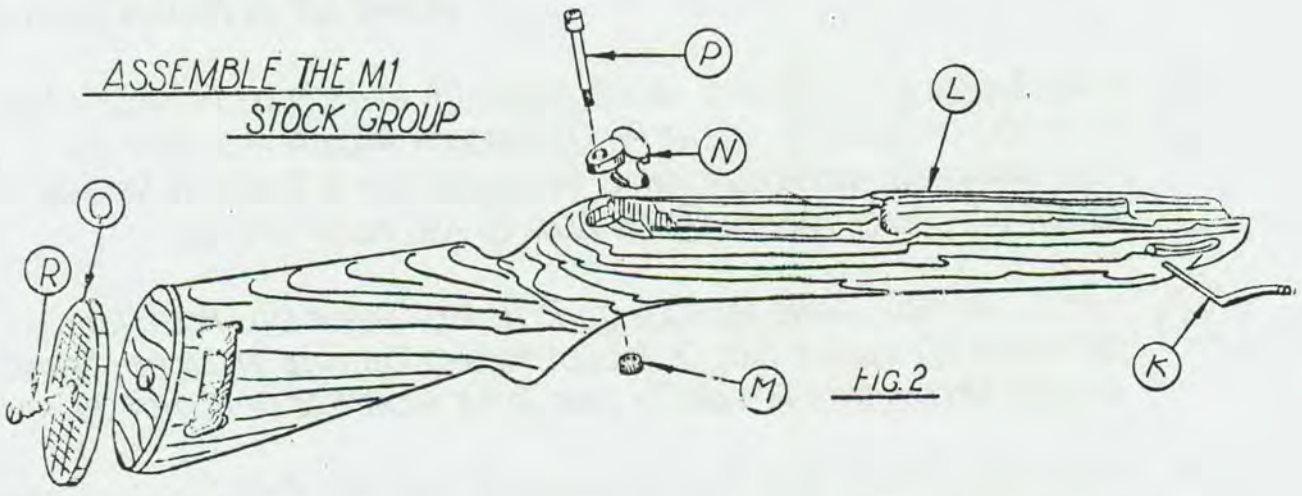


FIG. 2

(17) TAP SPRING (K) INTO STOCK (L). TAP SERRATED NUT (M) INTO BOTTOM OF STOCK (L). PLACE RECOIL PLATE (N) IN STOCK AND INSTALL SCREW (P). FIT BUTT PLATE (Q) ON REAR OF STOCK (L) AND APPLY SCREW (R).

SMALL ARMS CARBINE, CAL. 30 M1 AND M1A1	ASSEMBLING	SHEET 7 OF 8

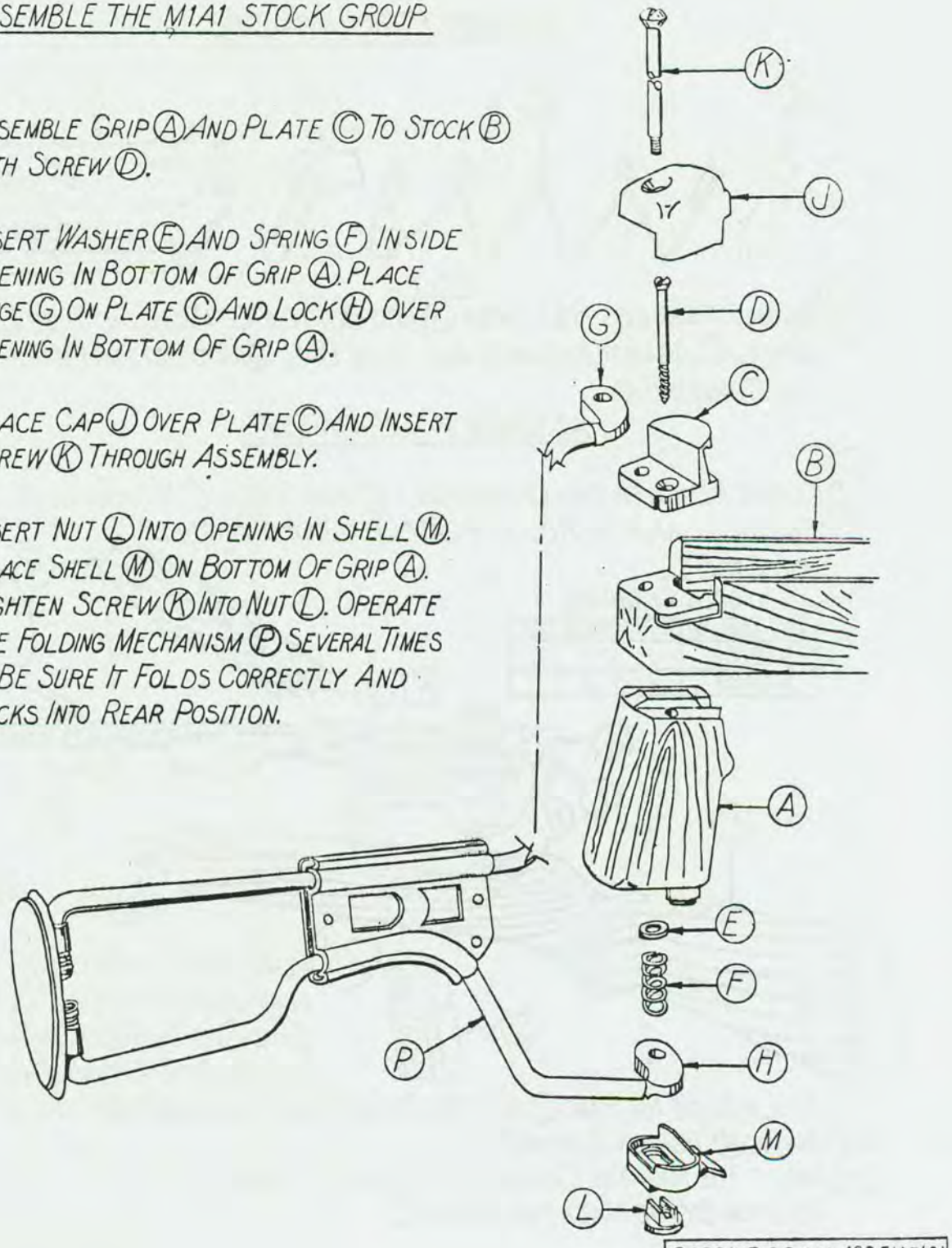
ASSEMBLE THE M1A1 STOCK GROUP

(18) ASSEMBLE GRIP (A) AND PLATE (C) TO STOCK (B) WITH SCREW (D).

(19) INSERT WASHER (E) AND SPRING (F) INSIDE OPENING IN BOTTOM OF GRIP (A). PLACE HINGE (G) ON PLATE (C) AND LOCK (H) OVER OPENING IN BOTTOM OF GRIP (A).

(20) PLACE CAP (J) OVER PLATE (C) AND INSERT SCREW (K) THROUGH ASSEMBLY.

(21) INSERT NUT (L) INTO OPENING IN SHELL (M). PLACE SHELL (M) ON BOTTOM OF GRIP (A). TIGHTEN SCREW (K) INTO NUT (L). OPERATE THE FOLDING MECHANISM (P) SEVERAL TIMES TO BE SURE IT FOLDS CORRECTLY AND LOCKS INTO REAR POSITION.



ASSEMBLE THE MAGAZINE

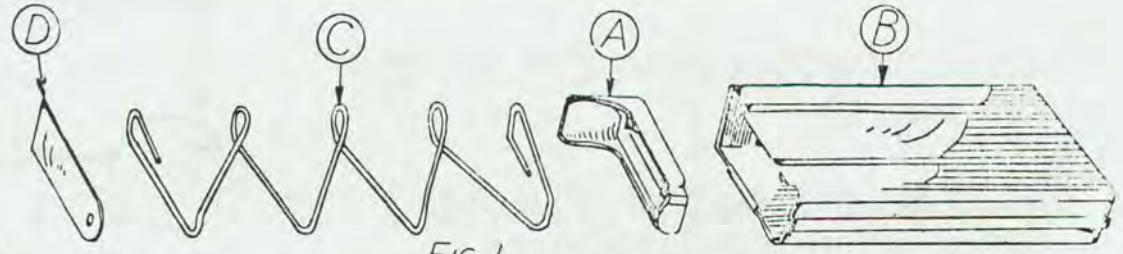


FIG. 1

22 INSTALL MAGAZINE FOLLOWER (A) INTO BOTTOM OF MAGAZINE TUBE (B). INSERT SPRING (C) AGAINST FOLLOWER AND SLIDE BASE (D) INTO BOTTOM OF TUBE (B) FROM THE CURVED END.

ASSEMBLE THE CARBINE

23 INSERT RECEIVER END OF ASSEMBLY (E) INTO STOCK (F), MAKING SURE CATCH (G) ENGAGES CATCH ON RECOIL PLATE (H). LOWER BARREL INTO STOCK.

TOOLS REQUIRED

TOOL DWG. NO.	SHEET	OPER.	DET.
909187	1	1	C
909189	2	3	H

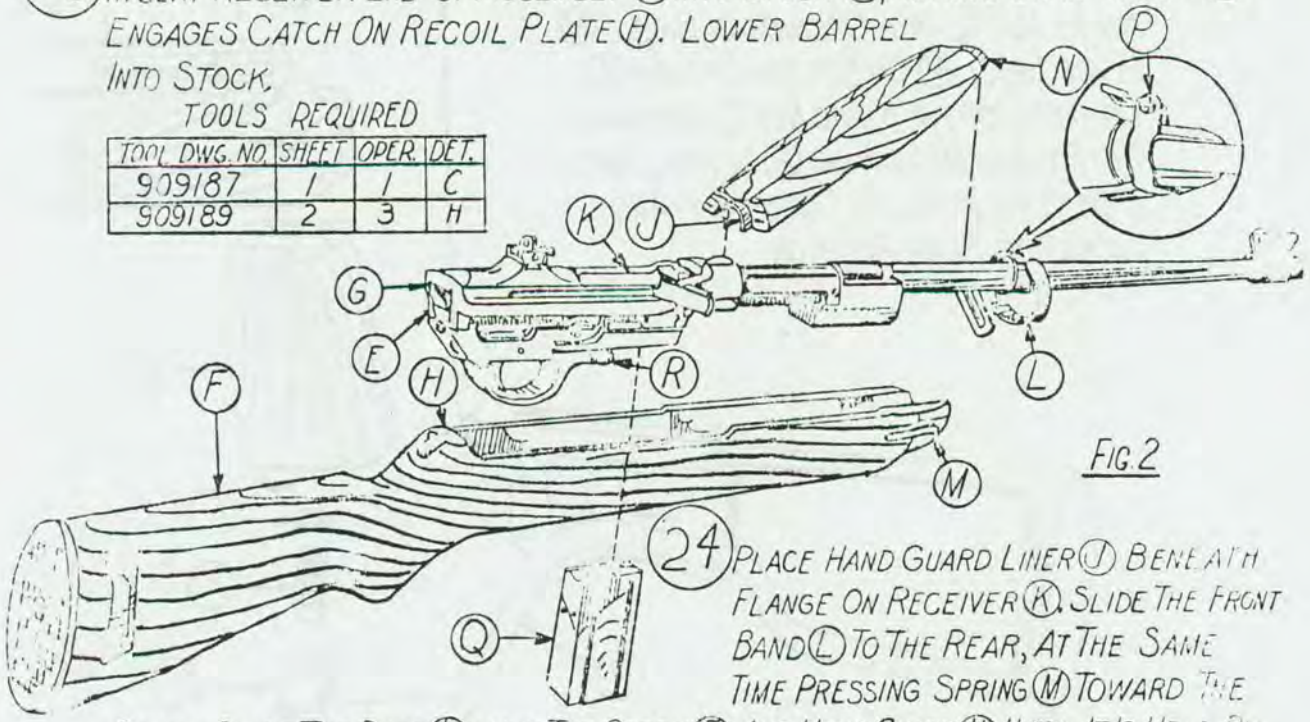


FIG. 2

24 PLACE HAND GUARD LINER (J) BENEATH FLANGE ON RECEIVER (K). SLIDE THE FRONT BAND (L) TO THE REAR, AT THE SAME TIME PRESSING SPRING (M) TOWARD THE STOCK. SLIDE THE BAND (L) OVER THE STOCK (F) AND HAND GUARD (N) UNTIL IT IS HELD BY SPRING (M). TIGHTEN SCREW (P).

25 INSERT THE MAGAZINE (Q) INTO THE BOTTOM OF THE CARBINE UNTIL IT IS LOCKED IN POSITION BY THE MAGAZINE CATCH (R).

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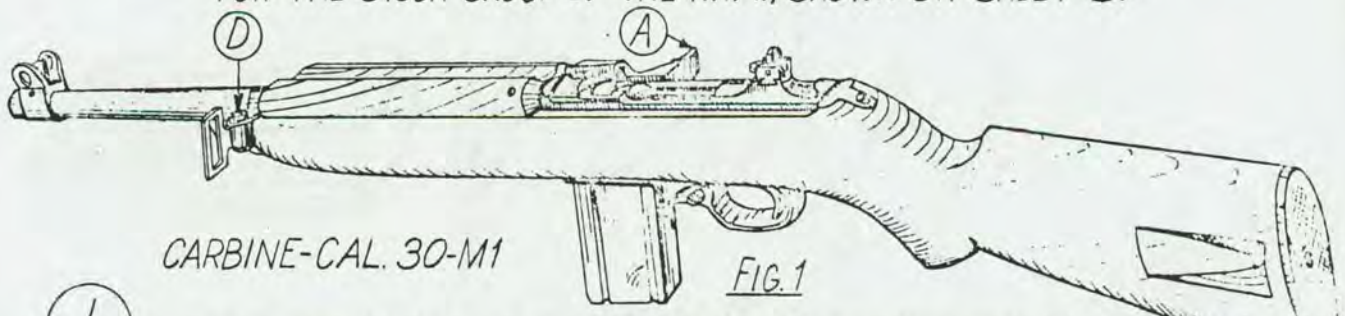
ROCK ISLAND ARSENAL - SEPT., 1942

B.S.D. No.

Dismantling 2

SMALL ARMS CARBINE, CAL 30 M1 AND M1A1	DISMANTLING	SHEET 1 OF 8

NOTE: THE CARBINES M1 AND M1A1 ARE DISMANTLED SIMILIARLY, EXCEPT FOR THE STOCK GROUP OF THE M1A1, SHOWN ON SHEET 8.



CARBINE-CAL. 30-M1

FIG. 1

1. RETRACT THE OPERATING HANDLE (A) AND CHECK CHAMBER TO BE SURE GUN IS EMPTY. RETURN OPERATING HANDLE SLOWLY.

2. PRESS THE MAGAZINE CATCH (B) (FIG. 2) AND WITHDRAW THE MAGAZINE (C).

3. UNSCREW FRONT BAND SCREW (D) PART WAY, FIG. 1. PRESS FORWARD END OF LOCKING SPRING (E). TOWARD STOCK AND SLIDE FRONT BAND (F) FORWARD AS IN FIG. 2.

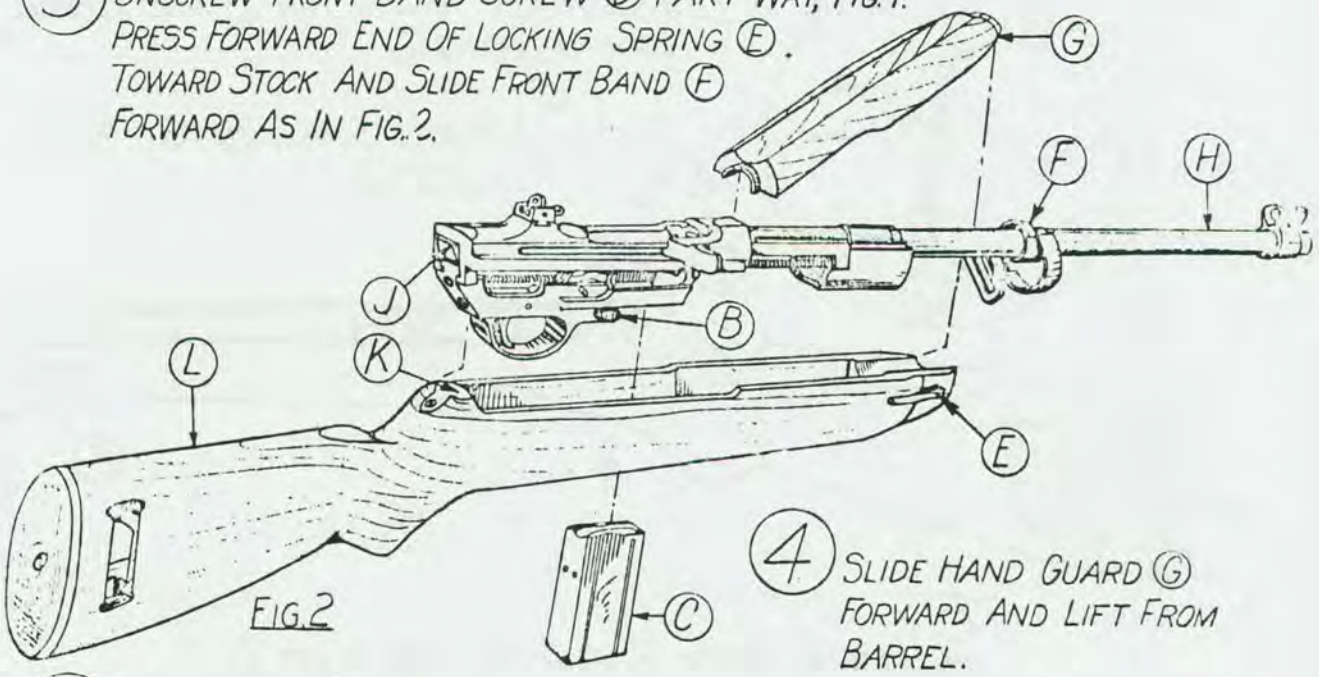


FIG. 2

4. SLIDE HAND GUARD (G) FORWARD AND LIFT FROM BARREL.

5. LIFT FORWARD END OF BARREL (H) UNTIL LUG (J) IS DISENGAGED FROM RECOIL PLATE (K). LIFT BARREL AND RECEIVER GROUP FROM STOCK (L).

DISMANTLING OF MAGAZINE

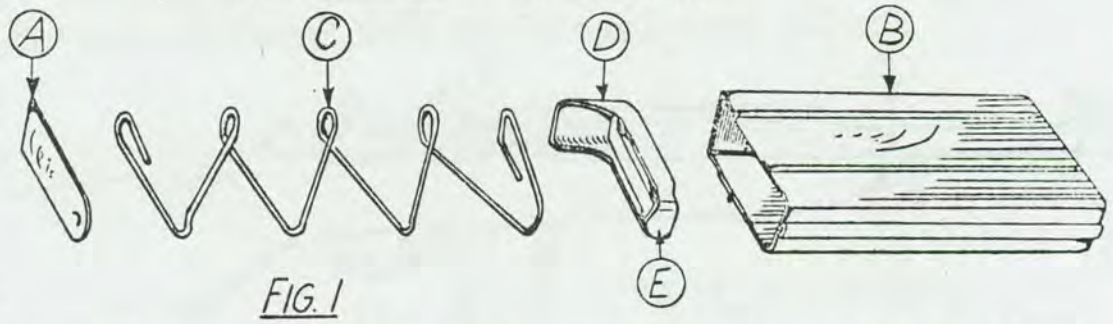


FIG. 1

6. PRESS MAGAZINE BASE Ⓐ AT ROUNDED END, AND SLIDE IT FROM MAGAZINE TUBE Ⓑ. REMOVE MAGAZINE SPRING Ⓒ AND FOLLOWER Ⓓ.

DISMANTLING OF M1 STOCK GROUP

7. TAP OUT RETAINING PIN Ⓕ AND REMOVE LOCKING SPRING Ⓖ.

8. REMOVE SCREW Ⓗ AND BUTT PLATE Ⓙ.

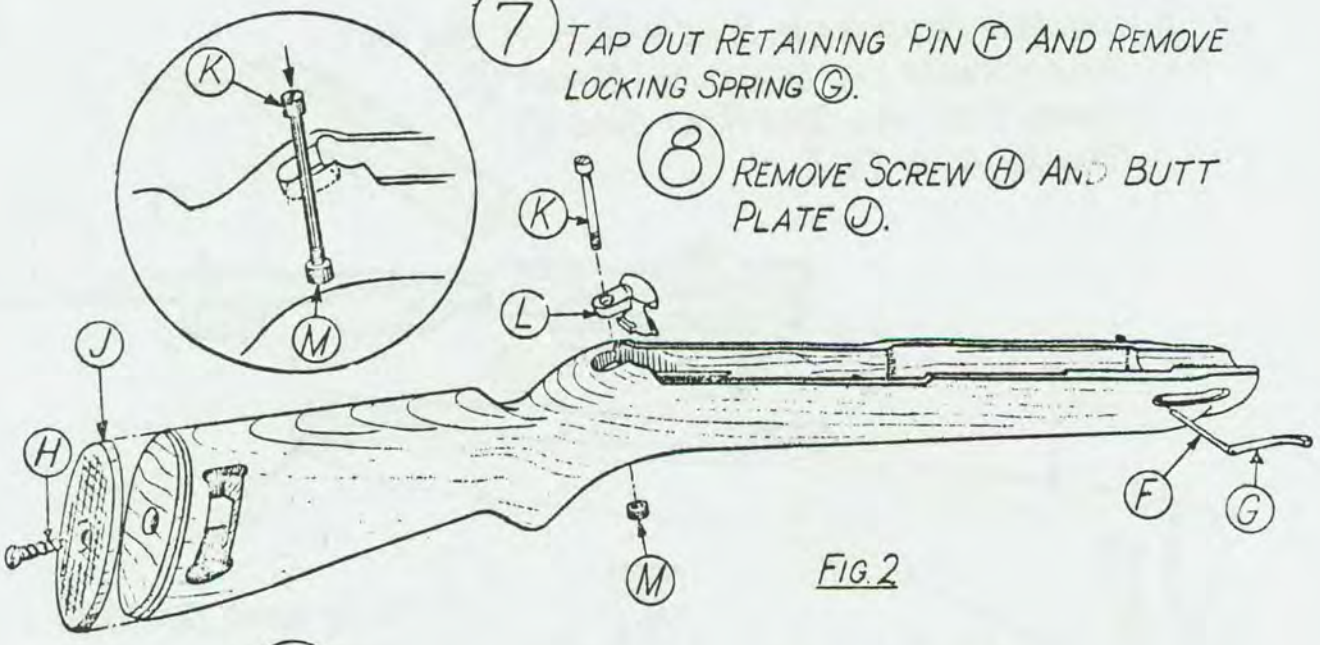


FIG. 2

9. REMOVE SCREW Ⓚ AND LIFT OUT PLATE Ⓛ.

10. PRESS OUT NUT Ⓜ WITH SCREW Ⓚ AS SHOWN IN INSET.

REMOVAL OF OPERATING SLIDE SPRING AND GUIDE AND TRIGGER GUARD GROUP

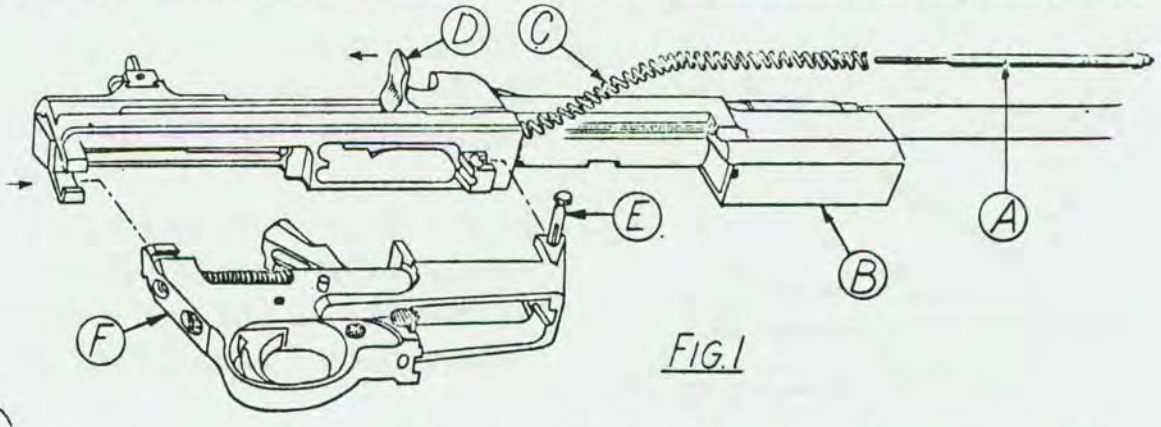


FIG. 1

(11) PUSH OPERATING SLIDE SPRING GUIDE (A) TO THE REAR, RELEASING IT FROM ITS SEAT IN THE OPERATING SLIDE (B). PULL GUIDE (A) CLEAR OF THE SLIDE AND REMOVE IT WITH SPRING (C).

(12) PULL THE OPERATING HANDLE (D) TO THE REAR, COCKING THE HAMMER. RETURN OPERATING HANDLE TO FORWARD POSITION.

(13) PULL OUT PIN (E) AND TRIGGER GUARD (F).

REMOVAL OF OPERATING SLIDE

(14) SLIDE OPERATING HANDLE (D) TO THE REAR, AND PULL IT OUT UNTIL LUG (G) IS FREE. MOVE OPERATING SLIDE FORWARD WITH LEFT HAND, CANTING IT TO THE RIGHT UNTIL LUG IS FREE AT (H).

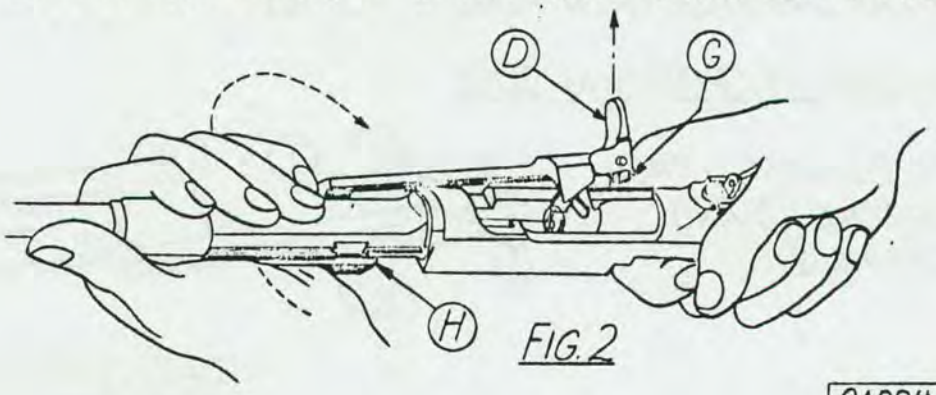


FIG. 2

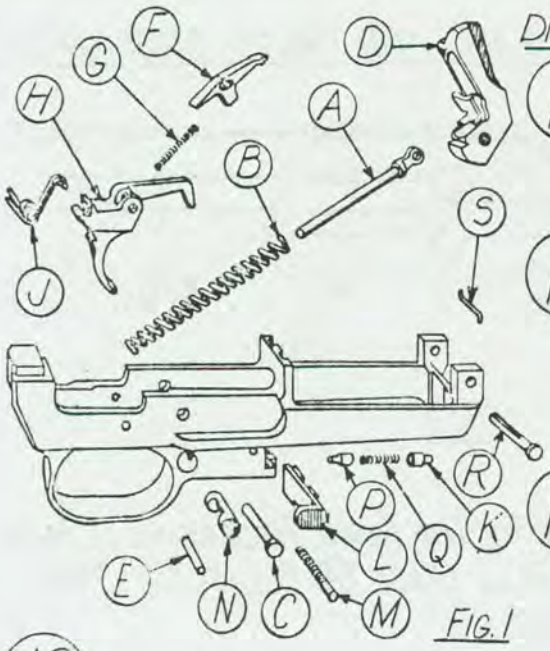


FIG. 1

DISMANTLING OF TRIGGER HOUSING GROUP

15. IF HAMMER IS BACK IN COCKED POSITION, PULL THE TRIGGER AND EASE HAMMER FORWARD WITH THE THUMB.

16. INSERT A PUNCH THROUGH HOLE IN HAMMER SPRING PLUNGER (A). PULL IT TO THE REAR AND TO ONE SIDE, EASING THE TENSION. DRAW IT FROM SPRING (B).

17. PRESS OUT HAMMER PIN (C) AND REMOVE HAMMER (D).

18. PRESS OUT TRIGGER PIN (E), RELEASING SEAR (F), SEAR SPRING (G), TRIGGER (H) AND TRIGGER SPRING (J).

19. THROUGH A HOLE IN THE BOTTOM OF THE TRIGGER HOUSING, DEPRESS THE MAGAZINE CATCH RETAINER PLUNGER (K) AND SLIDE OUT MAGAZINE CATCH (L), RELEASING THE MAGAZINE CATCH PLUNGER AND SPRING (M). REMOVE SAFETY (N). SHAKE OUT SAFETY PLUNGER (P), SPRING (Q) AND PLUNGER (K) AND SEPARATE.

20. IF IT IS NECESSARY TO REMOVE THE TRIGGER HOUSING RETAINING PIN (R), FIRST PRY OUT SPRING (S), THEN REMOVE PIN (R).

DISMANTLING OF OPERATING SLIDE

21. PUSH THE PLUNGER (T) FROM OPERATING SLIDE (U) AND REMOVE SPRING (V).

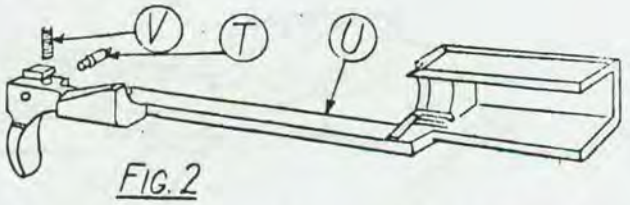


FIG. 2

REMOVAL OF BOLT GROUP

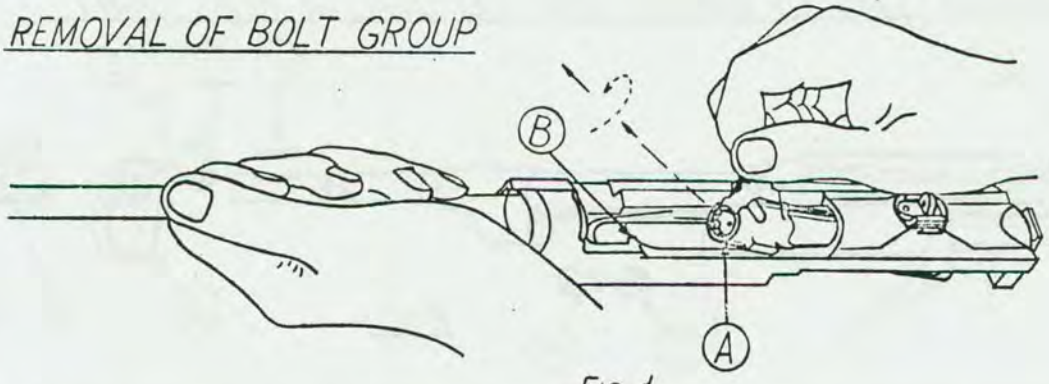


FIG 1

(22) GRASP BOLT (A) BY CAMLUG AS SHOWN AND SLIDE IT TO REAR UNTIL FRONT OF BOLT IS BEHIND LOCKING SHOULDER (B) IN RECEIVER. ROTATE THE BOLT TO THE LEFT AND PULL IT UP UNTIL IT STOPS. TURN BOLT TO THE RIGHT AND LIFT FROM RECEIVER.

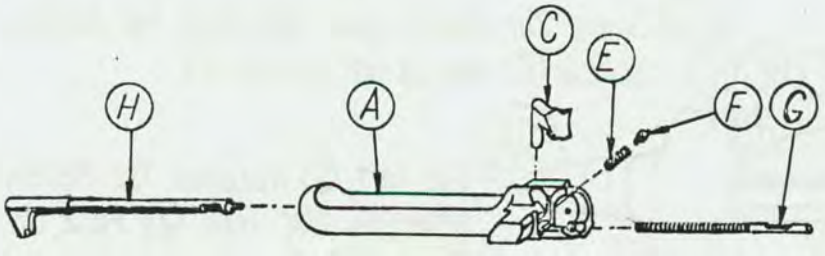


FIG. 2

(23) THE EXTRACTOR (C) LOCKS ALL THE COMPONENTS IN THE BOLT GROUP. HOLD THE THUMB OVER FACE OF BOLT (A) TO PREVENT THE EJECTOR (G) AND EXTRACTOR SPRING (E) AND PLUNGER (F) FROM FLYING OUT WHEN RELEASED. PUNCH OUT THE EXTRACTOR (C). WITHDRAW THE EJECTOR (G), EXTRACTOR SPRING (E), PLUNGER (F) AND FIRING PIN (H).

SMALL ARMS CARBINE, CAL.30 M1 AND M1A1	DISMANTLING	SHEET 6 OF 8

DISMANTLING OF BARREL AND REMOVAL OF REAR SIGHT

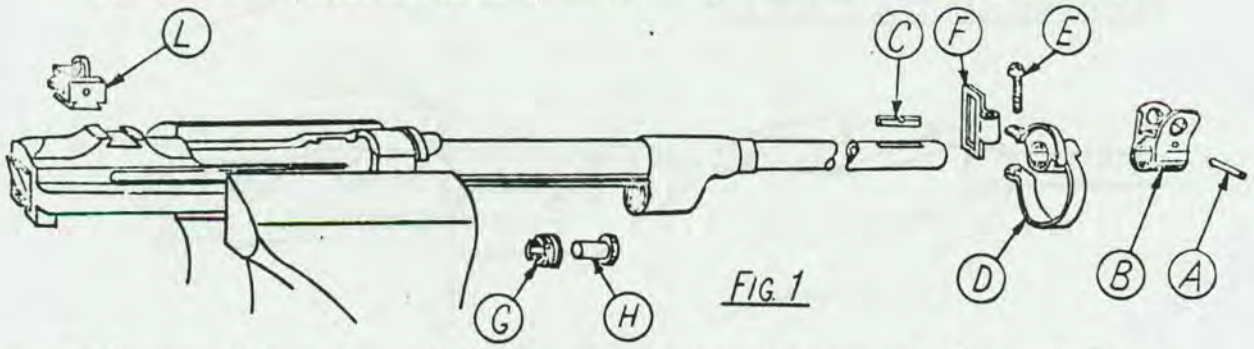


FIG. 1

NOTE: REMOVE FRONT SIGHT ONLY WHEN NECESSARY BECAUSE IT IS STAKED IN PLACE.

(24) PUNCH OUT PIN (A) AND TAP SIGHT (B) OFF BARREL WITH HARDWOOD BLOCK OR A BRASS DRIFT. THE KEY (C) IS STAKED AT THE REAR. USING A BRASS DRIFT, TAP KEY TO REAR TO RELEASE STAKING AND REMOVE KEY.

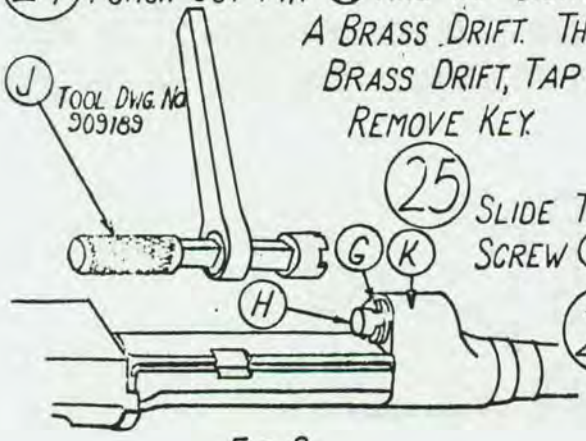


FIG. 2

(25) SLIDE THE FRONT BAND (D) FROM THE BARREL. REMOVE SCREW (E) AND SLING SWIVEL (F).

(26) THE NUT (G) HOLDING THE PISTON (H) IS STAKED. USE TOOL (J), FIG. 2, ON NUT (G). PISTON (H) SLIDES OUT OF GAS CYLINDER (K).

(27) MARK POSITION OF REAR SIGHT (L) FOR FUTURE ASSEMBLY BEFORE REMOVING FROM RECEIVER. DRIVE OUT REAR SIGHT, USING A HARDWOOD BLOCK OR BRASS DRIFT, FROM RIGHT TO LEFT.

DISMANTLING OF REAR SIGHT

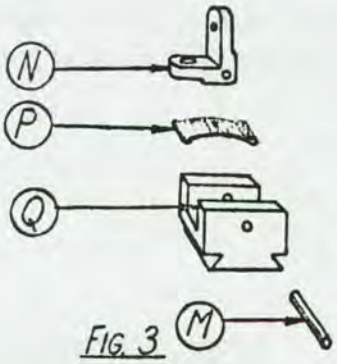


FIG. 3

(28) PUNCH OUT PIN (M), RELEASING SIGHT LEAF (N) AND SPRING (P) FROM BASE (Q).

SMALL ARMS	DISMANTLING	SHEET
CARBINE, CAL.30 M1 AND M1A1		7 OF 8

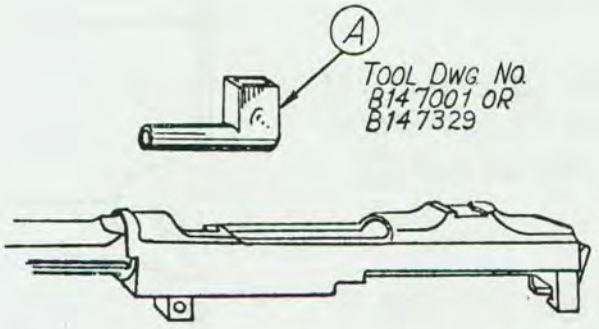


FIG. 1

29 INSERT TOOL (A) IN THE CHAMBER AND, TURNING THE MUZZLE END OF THE BARREL TOWARD THE LIGHT, SIGHT THE BARREL FOR STRAIGHTNESS. INSPECT THE BORE FOR RUST AND PITS. CHECK FOR WORN LANDS.

REMOVAL OF RECEIVER

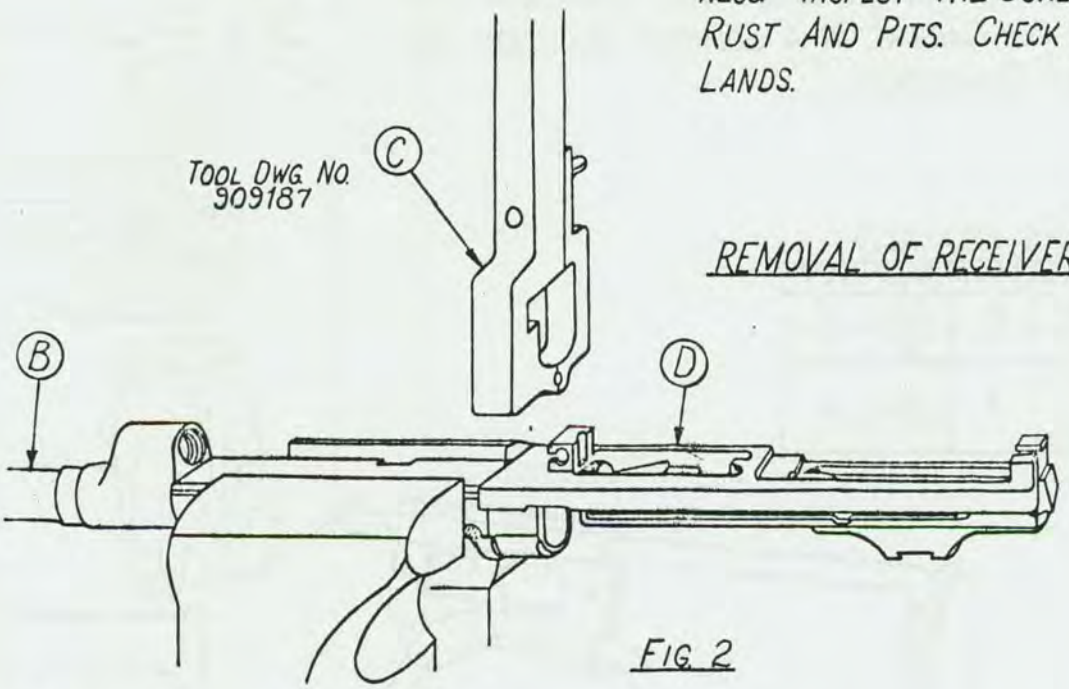


FIG. 2

30 IF A NEW BARREL OR RECEIVER IS TO BE USED, HOLD THE BARREL (B) FIRMLY IN A VISE WITH COPPER JAWS. PLACE THE HINGED BOX WRENCH (C) AROUND RECEIVER (D) AS NEAR BARREL AS POSSIBLE AND UNSCREW RECEIVER FROM BARREL. (RECEIVER HAS STANDARD RIGHT HAND THREADS.)

DISMANTLING OF THE M1A1 STOCK GROUP

31 REMOVE THE SCREW (A), RELEASING NUT (B) AND EYELET AND SHELL (C). REMOVE CAP (D) AND FOLDING STOCK ASSEMBLY (E). REMOVE SPRING (F) AND WASHER (G), FROM BOTTOM OF GRIP (H).

32 REMOVE SCREW (J) RELEASING GRIP (H). LIFT OUT PLATE (L) FROM STOCK (K).

AFTER DISMANTLING CLEAN ALL COMPONENT PARTS OF THE CARBINE IN A SOLVENT SOLUTION AND DRY THOROUGHLY.

TOOLS REQUIRED

TOOL DRAWING	SHEET	OPER.	DET.
909189	6	26	J
909187	7	30	C
B147001 OR B147329	7	29	A

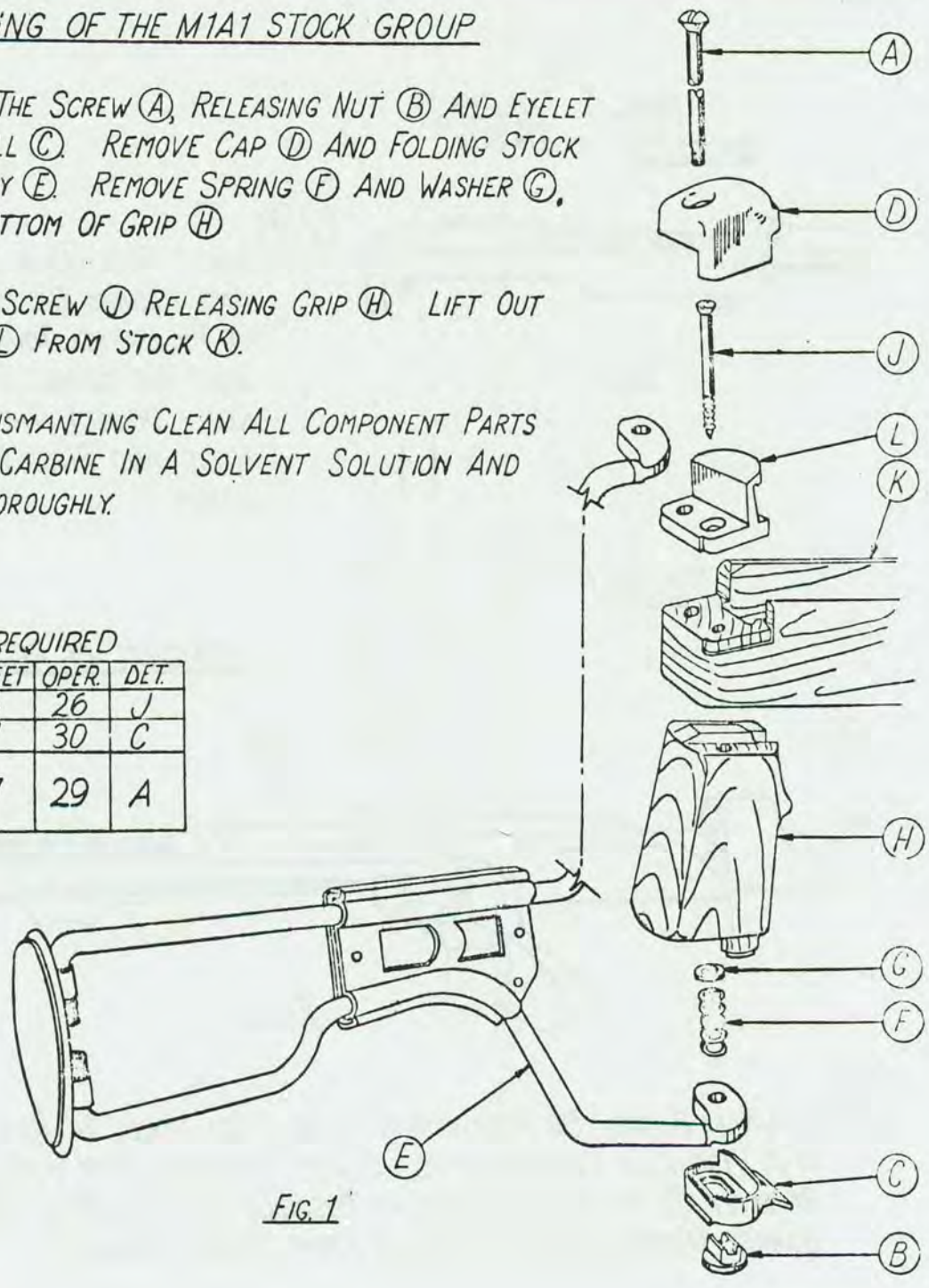


FIG. 1